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- 3. (currently amended) The method of claim 1 wherein the state information includes a group parameter indicating at least one destination of the data step of flooding the multicast data includes transmitting the multicast data via all ports except the port on which the multicast data was received.
- 4. (original) The method of claim 1 further comprising performing a reverse path forwarding check on the data.
- 5. (original) The method of claim 4 wherein the performing is done using a multicast border gateway protocol.
- 6. (original) The method of claim 1 further comprising verifying that the data was received at the proper line card.
- 7. (original) The method of claim 6 wherein the verifying is done using a multicast border gateway protocol.
- 8. (currently amended) An article comprising a machine-readable medium which stores machine-executable instructions the instructions causing a machine to <u>process multicast data that is associated with a multicast group and transmitted to a port of a line card of a router to:</u>

flood the multicast data from a plurality of ports of the router; and

determine an appropriate group of output ports for the multicast group.

multicast data to at least one line card-configured to attach to a router; and

store state information associated with the data as a default state at each line card the data
was multicast to.

9. (currently amended) The article of claim 8 wherein the instructions cause the machine to transmit subsequent multicast data associated with the multicast group from only the ports

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determined to be appropriate for the multicast group. the state information includes a source parameter indicating a source of the data.

- 10. (currently amended) The article of claim 8 wherein the instructions cause the machine to flood the multicast data from all ports except the port on which the multicast data was received the state information includes a group parameter indicating at least one destination of the data.
- 11. (original) The article of claim 8 further causing a machine to perform a reverse path forwarding check on the data.
- 12. (original) The article of claim 11 wherein the performing is done using a multicast border gateway protocol.
- 13. (original) The article of claim 8 further causing a machine to verify that the data was received at the proper line card.
- 14. (original) The article of claim 13 wherein the verifying is done using a multicast border gateway protocol.
- 15. (currently amended) A router operative to process multicast data that is associated with a multicast group and transmitted to a port of a line card of the router comprising:

processing logic operative to flood the multicast data from a plurality of ports of the router, and

processing logic operative to determine an appropriate group of output ports for the multicast group

a line-card-configured to store state information for multicast data as a default-state; and

a central-controller unit configured to attach to the line-card and configured to receive a

packet included in the multicast data and to determine from the packet where to route the

multicast data.

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- 16. (original) The router of claim 15 further comprising a fabric configured to attach to the line card and to the central controller and configured to direct data.
- 17. (original) The router of claim 15 further comprising a plurality of line cards, each additional line card configured similar to the line card.
- 18. (currently amended) The router of claim 15 <u>further including processing logic operative to transmit subsequent multicast data associated with the multicast group from only the ports determined to be appropriate for the multicast group wherein the state information includes a source parameter indicating a source of the multicast data.</u>
- 19. (currently amended) The router of claim 15 <u>further including processing logic operative to</u>
 <u>flood the multicast data from all ports except the port on which the multicast data was received</u>
 wherein the state information includes a group parameter indicating at least one destination of the multicast data.
- 20. (currently amended) A method for processing multicast data which is associated with a multicast group and transmitted to a port of a line card of a router comprising:

receiving multicast data including unknown state information;

storing the multicast data with default state information;

flooding the multicast data from a plurality of ports of the router;

performing a reverse path forwarding check on the multicast data;

verifying that the multicast data was received at a proper interfaces;

determining a multicast group associated with the multicast data; and

routing subsequent multicast data associated with the multicast group from only the ports

associated with the multicast data to the multicast group.

21. (original) The method of claim 20 wherein the multicast data is stored at a data path of a line card.

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- 22. (original) The method of claim 20 further comprising multicasting the multicast data to all available interfaces after storing the multicast data.
- 23. (original) The method of claim 20 wherein the state information includes a source parameter indicating a source of the multicast data.
- 24. (original) The method of claim 20 wherein the state information includes a group parameter indicating at least one destination of the multicast data.
- 25. (original) The method of claim 20 wherein the multicast data is received at a line card.
- 26. (original) The method of claim 20 wherein a data path associated with a router and configured to process multicast data executes the performing and the verifying.
- 27. (original) The method of claim 26 wherein the data path uses a multicast border gateway protocol in executing the performing and the verifying.
- 28. (original) The method of claim 20 wherein a processor included in a router and configured to process multicast data executes the determining.
- 29. (original) The method of claim 20 further comprising trimming routes to paths not associated with the multicast group.
- 30. (original) The method of claim 20 further comprising receiving multicast data including known state information.
- 31. (original) The method of claim 30 further comprising verifying that the multicast data including known state information was received at a proper interface.

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- 32. (original) The method of claim 31 further comprising multicasting the multicast data including known state information according to the known state information if the multicast data including known state information is verified.
- 33. (original) The method of claim 31 further comprising dropping the multicast data including known state information if the multicast data including known state information is not verified.
- 34. (currently amended) A method for processing multicast data which is associated with a multicast group and transmitted to a port of a line card of a router, comprising:

installing a default state associated with multicast data in a data path of a line card; broadcasting the multicast data from the line card to all other line cards that the line card is configured to communicate with;

sending the multicast data from the data path to a control path of the line card; at the control path, computing a route for the multicast data; sending the computed route from the control path to the data path; and designating that the line cards not included in the computed route as not to be broadcast multicast data having the same state information and subsequently received at the data path subsequent to the multicast data and having the same state information as the multicast data.

- 35. (original) The method of claim 34 further comprising performing at the data path a reverse path forwarding check on the multicast data using a multicast gateway border protocol.
- 36. (original) The method of claim 34 further comprising prior to the installing, checking state information associated with the multicast data with a multicast border gateway protocol to verify that the line card received the multicast data from a proper source.